

REMARKS

Claims 8-14 and 60-65 have been amended. Claim 59 has been canceled. Claims 8-14 and 60-65 are pending after the amendment. No new matter has been added with this amendment.

As per suggestion from the Examiner, claims 12-14 have been amended to, ultimately, recite the phrase "...optimum of..."

Claims 64 and 65 have been objected because, according to the Examiner, they are in improper Markush form. Applicants have rewritten the claims in response to the objection so that the claims are now in disjunctive, not Markush, form. Accordingly, based upon amended claims 64 and 65, reconsideration and withdrawal of the objections are deemed moot and respectfully requested.

Claims 10 and 11 were rejected under 35 USC 112, second paragraph. These rejections are respectfully traversed. According to the Office Action, the phrase "associated with a dye or colored compound" together with the phrase "phenol oxidizing enzyme" render(s) the claims indefinite. According to the Examiner, "...without specifying the chemical compounds in the claims, one skilled in the art would not know which chemical compounds to choose" (see paper 13, page 4, Office Action dated November 15, 2002).

If one skilled in the art understands the term(s) "colored compounds," claims 10 and 11 would be legally definite, and Applicants would not need to specify which compounds to choose. A claim is definite if one skilled in the art would understand what is claimed, in light of the specification (see, e.g., MPEP 2173.05 (b)). Claims 10 and 11 are drawn to phenol oxidizing compounds capable of modifying a dye or colored compound. One skilled in the art would know the meaning of the word "colored compound" (see, e.g., specification, page 8, lines 23-24, "...colored compound refers to a substance that adds color to textiles or to substances which result in the *visual appearance* of stains...; and *Merriam-Webster's Collegiate Dictionary*, 10th Edition). Specifying which compounds in the claim would render the claims definite as to only those compounds recited (and therefore would not particularly point out and distinctly claim what the Applicants regard as the invention, i.e., all colored compounds, as now claimed). Accordingly, the claims are definite as written, and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 8 and 9 were rejected under 35 USC 112, first paragraph. According to the Office Action, the claims do not specify the "species" of phenol oxidizing enzyme. These rejections are respectfully traversed based upon the following.

There is no requirement that a claim specify a "species" to satisfy the written description requirement. Rather the test is whether the description clearly allows persons of ordinary skill in the art to determine what is claimed (see, e.g., MPEP 2163.03; and *In re Gosteli*, 10 USPQ2d 1614, 1618 (1989)). In the present case, claims 8 and 9 are drawn to an oxidizing enzyme, and the specification teaches how to isolate the oxidizing enzymes (see, e.g., specification, examples 1 and 2, et seq, pages 20 and 21, et seq, respectively.) One skilled in the art could determine the subject matter of the claims and, accordingly, the written description requirement has been satisfied, and reconsideration and withdrawal of the rejection are respectfully requested.

Claims 10 and 11 were rejected under 35 USC 112, first paragraph. According to the Office Action, the claims are directed to an "...extremely large..." genus of colored compounds. These rejections are respectfully traversed based upon the following.

Contrary to the assertion in the Office Action, the "size" (i.e., number in the genus) is not relevant to the test of whether Applicants have complied with the written description requirement. The test is whether the description clearly allows persons of ordinary skill in the art to determine what is claimed (see, e.g., MPEP 2163.03; and *In re Gosteli*, 10 USPQ2d 1614, 1618 (1989)). In the present case, claims 10 and 11 recite "colored compounds" a term well-known to one skilled in the art. Since one skilled in the art could determine the subject matter of the claims, the written description requirement is satisfied, and reconsideration and withdrawal of the rejection are respectfully requested.

Likewise claims 10 and 11 were rejected under 35 USC 112, first paragraph. According to the Office Action, claims 10 and 11 recite "...an extremely large genus of colored compounds that do not contain a phenolic group..." and Applicants did not *show* that the enzymes act on all these compounds. These rejections are respectfully traversed.

Under the enablement requirement, Applicants need not show whether the enzymes act on *all* compounds, as per the Office Action. The test of enablement is whether one skilled in art could make and/or use the claimed invention in the patent *without undue experimentation* (see, e.g., MPEP 2164.01 and *In Re Wands*, 8 USPQ2d

1400 (Fed.Cir. 1988). In the present case, Applicants have shown that enzymes will act on certain compounds (see, e.g., Example 9 et seq, specification), and one skilled in the art could readily determine whether the enzymes work on additional compounds such as an additional compound of interest, *without undue experimentation*. Accordingly, the enablement requirement has been satisfied, and reconsideration and withdrawal of the rejections are respectfully requested.

Applicants would like to note that none of rejections recited in the Office Action provided any substantive basis (see, e.g, showing that the burden of communicating the basis for the rejection is on the Examiner, e.g., MPEP 2164.03, 2163.04, etc), and invite the Examiner to provide substance for the rejections, if available.

In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance and issuance of a formal Notice of Allowance is respectfully requested. Examiner Walicka is invited to contact Applicants at (650) 846-7544 if there are additional questions/concerns.

Respectfully submitted,



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MARKED-UP VERSION OF AMENDED CLAIMS

8. (AMENDED) A purified [**phenol oxidizing**] **oxidase** enzyme obtained from *Stachybotrys*, wherein said phenol oxidizing enzyme comprises at least one antigenic determinant in common with a phenol oxidizing enzyme naturally produced from *Stachybotrys parvispora* MUCL accession number 38996 as measured by an immunoprecipitation line by Ouchterlony technique.

9. (AMENDED) A purified [**phenol oxidizing**] **oxidase** enzyme obtained from *Stachybotrys*, wherein said phenol oxidizing enzyme comprises at least one antigenic determinant in common with a phenol oxidizing enzyme naturally produced from *Stachybotrys chartarum* MUCL accession number 38898 as measured by an immunoprecipitation line by Ouchterlony technique.

10. (AMENDED) A purified [**phenol oxidizing**] **oxidase** enzyme having an apparent molecular weight of about 38 kD as determined by SDS-PAGE and exhibiting an increase in apparent molecular weight after boiling, wherein said purified enzyme is obtained from *Stachybotrys parvispora* and is capable of modifying the color associated with a dye or colored compound.

11. (AMENDED) A purified [**phenol oxidizing**] **oxidase** enzyme having an apparent molecular weight of about 30.9 kD as determined by SDS-PAGE and exhibiting an increase in apparent molecular weight after boiling, wherein said purified enzyme is obtained from *Stachybotrys chartarum* and is capable of modifying the color associated with a dye or color compound.

12. (AMENDED) The [**purified phenol oxidizing**] enzyme of claim 10 having a pH optimum of [**from**] 5.0 to 7.0, inclusive as determined by incubation for 2 minutes at 20 degrees C with 2,2'-azino-bis (3-ethylbenzothiazoline-6-sulphonate (ABTS) as substrate.

13. (AMENDED) The [**purified phenol oxidizing**] enzyme of claim 10 having pH optimum of [**from**] 6.0 to 7.5, inclusive, as determined by incubation for 2 minutes at 20 degrees C with syringaldizing as substrate.

14. (AMENDED) The **[purified phenol oxidizing]** enzyme of claim 10 having a pH optimum of **[from]** 7.0 to 9.0, inclusive, as determined by incubation for 2 minutes at 20 degrees C with 2,6-dimethoxyphenol as substrate.

59. Canceled

60. (AMENDED) The **[purified phenol oxidizing]** enzyme of Claim 10, wherein the *Stachybotrys parvispora* has MUCL accession number 38996.

61. (AMENDED) The **[purified phenol oxidizing]** enzyme of Claim 11, wherein the *Stachybotrys chartarum* has MUCL accession number 38898.

62. (AMENDED) The **[purified phenol oxidizing]** enzyme of Claim 13, wherein the *Stachybotrys parvispora* has MUCL accession number 38996.

63. (AMENDED) The **[purified phenol oxidizing]** enzyme of Claim 14, wherein the *Stachybotrys parvispora* has MUCL accession number 38996.

64. (AMENDED) The **[phenol oxidizing]** enzyme of claim 10, wherein said colored compound is **[selected from the group consisting of]** a porphyrin **[compounds]**, a polyphenol **[compounds]**, a carotenoid **[compounds]**, an anthocyanin **[compounds]** **[and]** ora maillard reaction **[compounds]** compound.

65. (AMENDED) The **[phenol oxidizing]** enzyme of claim 11, wherein said colored compound is **[selected from the group consisting of]** at least one of a porphyrin **[compounds]**, a polyphenol **[compounds]**, a carotenoid **[compounds]**, an anthocyanin **[compounds]** **[and]** ora maillard reaction **[compounds]** compound.